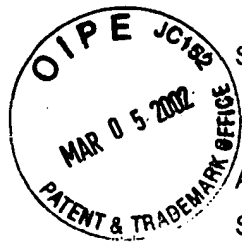


AF/270

SS



S/N 09/191,577

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	FREES ET AL.	Examiner:	Castro, A.
Serial No.:	09/191,577	Group Art Unit:	2652
Filed:	11/13/98	Docket No.:	SA998163
			501.117US01

*Handwritten signatures and initials: 2/19/02, BSO, IK*

Title: MOUNTING INTERFACE FOR A SPINDLE MOTOR

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

2/19/02  
David W. Lynch

Name

Signature

*Handwritten signature of David W. Lynch*

Box AF  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**RECEIVED**

**MAR 07 2002**

**Technology Center 2600**

- ☒ Appellants' Reply To The Examiner's Answer
- ☒ Transmittal Sheet
- ☒ Return postcard

Authorization is hereby given to charge any additional fees or credit any overpayments that may be deemed necessary to Deposit Account Number 50-1038.

Respectfully submitted,

Altera Law Group, LLC  
6500 City West Parkway, Suite 100  
Minneapolis, Minnesota 55344-7701  
952-912-0539

Date:

2/19/02

By:

*Handwritten signature of David W. Lynch*  
David W. Lynch  
Reg. No. 36,204

DWL/tmj



1

S/N 09/191,577

PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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David W. Lynch

Name

  
Signature**APPELLANTS' REPLY TO THE EXAMINER'S ANSWER** **RECEIVED**

BOX AF  
Assistant Commissioner for Patents  
Washington, D.C. 20231

MAR 07 2002  
Technology Center 2600

Sir:

This Reply to the Examiner's Answer is presented in support of the Amended Appeal Brief filed November 15, 2001, and the Appeal filed May 4, 2001, from the final rejection of Claims 1-51 of the above-identified application, as set forth in the final Office Action mailed January 4, 2001.

Appellants maintain the positions presented in the Amended Appeal Brief filed November 15, 2001, but present further refutation of the assertions presented in the Examiner's Answer.

**1. THE EXAMINER'S ASSERTION THAT THE POSITIONS OF THE SURFACE POINTS ARE SELECTED TO AFFECT A VIBRATIONAL CHARACTERISTICS IS WITHOUT MERIT**

In his Answer, the Examiner asserted that Kirkwood (U.S. Patent No. 6,045,112) discloses "the position of the at least three surface points being selected to affect a vibrational characteristic of the motor (column 3, lines 54-62 and column 4, lines 44-47)." Further, in the Answer the Examiner states "Kirkwood discloses that protrusions 48 and 58 are located to reduce vibrations (column 3, lines 55-61). However, to quote directly column 3, lines 55-61, Kirkwood actually states:

"To reduce vibrations from motor 22 and vibrations transmitted through fastener 32, a plurality of protrusions 48 (four shown) are located proximate fastener 32 and isolator sleeve 36. Protrusions 48 project outwardly from a motor-facing side of isolator 40. For this embodiment, protrusions 48 are configured to be wedge-shaped so as to resemble the shape of protrusions 58, an expanded detail of which is shown in FIG. 1."

As can be seen from the above quote, Kirkwood does not state that the positions of the surface points may be selected to affect a vibrational characteristic of the motor as recited in claim 1 for example. Rather, Kirkwood states that the protrusions are located proximate fastener and isolator sleeves. Clearly Kirkwood recognizes that vibrations may be transmitted via the fastener. However, Kirkwood cannot be used to support the assertion that the position of the protrusions is important for reducing vibrations because Kirkwood later states

that the protrusions may be distributed over the motor-facing and over the exterior drive shaft side of motor cover (see column 4, lines 53-57).

Moreover, no where does Kirkwood recognize that the position of the surface points may be selected to "tune" vibrational characteristics of the motor. Rather, a complete reading of Kirkwood emphasizes that recognized only three problems:

- 1) vibrations may be transmitted through the fastener and the isolator sleeves;
- 2) surface area affects vibrational transmissions; and
- 3) the material at the interface of the pads affects vibrational transmission.

For example, column 4, lines 22-26, state:

"These axially extending ridges reduce surface contact area between the exterior surface of the motor and the interior surface of the motor cover. The reduction in common surface area reduces the transmission of motor vibrations to the mounting surface."

Column 4, lines 44-47 states:

"This limited surface area is a reduction in the surface area conventionally available to conduct vibrations and thus provides a reduction in the transmission of motor vibrations."

Column 4, lines 48-53 states:

"Protrusions 48 and 58 are configured to be wedge shaped protrusions (see expanded detail of 58 in FIG. 1) to further reduce the surface area common to motor 22 and mounting surface 50. However, protrusions 48 and 58 could just as well be any of a variety of shapes that reduce the common surface area between two surfaces."

Column 4, lines 58-63 states:

"In an alternate embodiment, the interior surface of motor covers 54 and 60 have a plurality of protrusions (not shown) that contact the exterior surface of motor 22 and are distributed around the circumference of the interior surface. These protrusions could be any of a variety of shapes known to minimize surface area contact."

Finally, Kirkwood states, at column 7, lines 28-39, that his invention solves vibrations by:

"In summary . . . [t]he vibration isolation systems use protrusions to reduce the amount of surface area common to motor 22 and mounting surface 50. Limiting the surface area through which vibrations can be transmitted and substantially surrounding motor 22 with vibration absorbing covers, shrouds, and/or housings reduces the transmission of vibrations from motor 22 to mounting surface 50."

Accordingly, Kirkwood fails to disclose, teach or even suggest a mounting interface for providing a steadfast relationship between a motor and a baseplate, the mounting interface comprising at least three surface points forming a single plane acting as a common boundary between the motor and the baseplate, positions of the at least three surface points being selected to affect a vibrational characteristic of the motor.

Moreover, Kirkwood clearly fails to recognize that vibrations may be reduced by tuning vibrational characteristics by selecting the positions of the at least three surface points.

Accordingly, the cited references do not teach, disclose or suggest Appellants invention. Thus, Appellants respectfully request that the Board overrule the Examiner's rejections.

**SUMMARY**

Based on the above arguments, it is submitted that the rejections of the pending claims were erroneous, and allowance of all pending claims is requested.

Please charge any additional fees or credit overpayment to Altera Law Group, LLC, Deposit Account No. 50-1038.

Respectfully submitted,

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